

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1, 12, 23 and 27 are currently being amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 4, 5, 12, 15, 16, 23, 25 and 27 are now pending in this application.

Applicant appreciates the courtesy extended by the Examiner and the Examiner's Supervisor during the telephonic interview conducted on May 5, 2005. A Statement of Substance of Interview is submitted herewith.

Claims 1, 5, 12, 16, 23 and 25 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0024734 by Nakabayashi (hereinafter "Nakabayashi"). Applicant respectfully traverses this rejection for at least the following reasons.

Embodiments of the present invention relate to enhancing of contrast in digital projectors. According to the disclosed embodiments, a sealant is provided along the perimeter of a gap along the light path between two optical components. As shown in Figure 3, the sealant is provided along the perimeter and around the light path. Thus, the sealant prevents dust and other pollutants from entering the light path between the two optical components, such as between a DMD cover plate 320 and the TIR prism 330. Further, as described in the specification at paragraph 0017, the gap may be evacuated to provide substantially a vacuum. Thus, the invention includes systems and methods for enhancing contrast in which two optical components are separated by a gap containing substantially a vacuum therein. Applicant has amended claim 1 to more clearly recite that "said sealing and

said evacuating provide substantially a vacuum in said sealed gap.” Further, claims 12 and 23 have been amended to more clearly recite the structural limitation “said gap containing substantially a vacuum therein.” The same structural limitation is also recited in independent claim 25.

Nakabayashi, on the other hand, fails to teach or suggest such a device or method. Rather, Nakabayashi discloses an optical element and a method of making the optical element in which two optical members are stacked so that a space is formed therebetween. However, Nakabayashi fails to disclose that the space contains substantially a vacuum therein. The Office Action cites Nakabayashi as disclosing this feature at paragraphs [0039] and [0043].

Paragraph [0039] of describes the bonding of two optical members in a vacuum chamber. The process described in paragraph [0039] requires the evacuation of the vacuum chamber for degassing of the molding die used for molding the optical members (see paragraph [0034] of Nakabayashi. Subsequently, prior to the stacking and bonding of the optical members, nitrogen gas is supplied to the chamber, providing a gap filled with nitrogen, not a vacuum.

Paragraph [0043] of Nakabayashi merely discloses a variation of the embodiment described in paragraph [0039]. Although paragraph [0043] describes that the optical element is sealed by applying an adhesive to the optical members in a vacuum chamber, it is clear that the vacuum chamber is used in the same capacity as the vacuum chamber described in paragraphs [0034] and [0039], namely to provide for the degassing of the molding die used for molding the optical members.

Thus, Nakabayashi fails to teach or suggest a gap containing substantially a vacuum therein. Accordingly, Nakabayashi does not anticipate independent claims 1, 12, 23 and 25.

Claims 12, 16, 23, 25 and 27 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,795,243 to McGettigan et al. (hereinafter “McGettigan”). Additionally, claims 12, 15, 16, 23, 25 and 27 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,698,902 to Kawano et al. (hereinafter “Kawano”). Applicant respectfully traverses this rejection for at least the following reason.

The Office Action argues that the limitation “wherein said gap is evacuated to provide substantially a vacuum in said gap” is functional limitation, and that no structural limitation is provided. Applicant has amended claims 12, 23 and 27 to recite the structural limitation, a “gap containing substantially a vacuum therein.” Further, claim 25 already recites the same structural limitation. Accordingly, independent claims 12, 23, 25 and 27 are not anticipated by Kawano or McGettigan.

Claims 1, 4 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano in view of Nakabayashi. Applicant respectfully traverses the rejection for at least the following reason.

As noted above, the present invention includes optical members separated by a gap. In order to prevent dust from accumulating and thereby enhancing contrast, the gap is sealed and is evacuated. In order to more clearly recite the method for enhancing contrast, Applicant has amended claim 1 to recite “said sealing and said evacuating provide substantially a vacuum in said sealed gap.”

The Office Action acknowledges that Kawano does not disclose the method step of “evacuating said gap to provide substantially a vacuum in said gap.” The Office Action cites Nakabayashi as teaching evacuating a gap to provide substantially a vacuum in said gap. As discussed above, Nakabayashi discloses evacuating a vacuum chamber and filling it with nitrogen prior to stacking the optical members. Thus, when the gap is sealed, the gap contains nitrogen therein, not a vacuum. Accordingly, claim 1 is patentable over the cited references.

Thus, claims 1, 12, 23, 25 and 27 are patentable over the cited references. Further, claims 4, 5, 15 and 16 depend from one of the allowable claims and are, therefore, patentable for at least that reason as well as for additional patentable features when those claims are considered as a whole.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

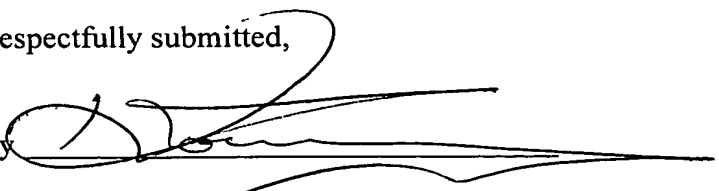
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Date: June 2, 2005

HEWLETT-PACKARD COMPANY
Customer No.: 022879

Respectfully submitted,

By



William T. Ellis
Registration No. 26,874

Keith J. Townsend
Registration No. 40,358